

REMARKS

In paragraph 18 of the Office Action dated December 15, 2005, claims 1-9 were rejected under 35 U.S.C. 102(b) as being anticipated by UK Patent 1346246 (UK246).

Applicant amends claims 1-9 to more particularly point out the present invention and distinguish it from UK246. Specifically, applicant amends claim 1 to require that the fibrous support include fibers that are made from glass, carbon or ceramic.

It is important to note that UK 246 is directed to flame proofing readily combustible textile fibers which is completely different from the present invention, as now claimed, wherein the fibers are made from non-combustible materials (i.e. glass, carbon or ceramic). There is a significant difference between flame proofing readily combustible fibers, as is the case with UK 246, and the present invention where the fire resistance of a resin matrix, and not the fibers, is being increased.

In discussing the use of red phosphorous as a fireproofing agent, UK 246 states:

“It has further been proposed to make polyurethane foam materials flame-proof by adding red phosphorus. However, this is not in connection with the treatment of textiles. Treated textiles cannot be compared with such substances as synthetic resins are only present in limited quantities therein, most of the substances being formed by the readily combustible textile portion.”

(Page 1, col. 1, lines 26 – 34) (emphasis added).

UK 246 further makes it clear that its teachings are limited only to readily combustible textile fibers by stating that:

“The textiles can be of different types e.g. natural fibres such as wool, cotton, hard fibres such as sisal or hemp, man-made fibres such as regenerated cellulose and its derivatives, e.g. rayon, polyamides, polyesters and optionally also mixtures of these fibres can all be used.”

(Page 2, col. 1, lines 34 – 39).

There is a significant difference between the problems associated with flame proofing readily combustible fibers, such as cotton and wool, as taught by UK246 and the treatment of matrix resins in composite materials to increase the resistance of the resin matrix (and not the non-combustible glass, carbon or ceramic fibers) to fire. In addition, there is no teaching or suggestion in UK 246 that its disclosure with respect to flame proofing cotton, wool and the like has any relevancy or comparison to increasing the fire resistance of a matrix resin where the fibers are non-combustible glass, carbon or ceramic.

To the contrary, as set forth in the first quotation above, UK 246 teaches that there is no comparison between the flame proofing of combustible textiles (which have synthetic resins present only in limited amounts) and other materials that contain substantial amounts of synthetic resins. Accordingly, the present invention, as now claimed, is neither anticipated nor rendered obvious by UK246.

Claims 2-9 are dependent upon claim 1. Accordingly, the above remarks distinguishing claim 1 from UK246 are applicable to these dependent claims.

Also in paragraph 18 of the Office Action, Claims 6 and 7 were rejected as being indefinite since thermoplastic polymers with a glass transition temperature of lower than 300°C were included only as an optional element in claim 1. Applicant has amended claim 1 to remove this indefiniteness by specifically including thermoplastic polymers with a glass transition temperature of lower than 300°C as a member of a Markush group that also includes thermosetting prepolymers that have a softening temperature of 150°C or lower.

In paragraph 19 of the Office Action, claims 10-17 were also rejected under 35 U.S.C. 102(b) as being anticipated by UK Patent 1346246 (UK246). Applicant amends claim 10 in the same manner as claim 1 to more particularly point out that applicant's process is directed to making fibrous supports that include fibers that are made from glass, carbon or ceramic. As pointed out in detail above, this is substantially different from UK246, which is directed to fibrous supports that are made from readily combustible textile fibers. Accordingly, claim 10 is neither anticipated nor rendered obvious. Claims 11-17 are dependent upon claim 10 so that they are distinguishable from UK246 for the same reasons as claim 10.

Applicant also amends claim 10 to require that the resin be selected from a Markush group consisting of thermosetting prepolymers and thermoplastic polymers, in the same manner as the amendment to claim 1. This amendment removes the same indefinite language from claim

10 (and claims 11-17, which are dependent thereon) that was present in claim 1, as discussed above.

In view of the above amendment and remarks, applicant respectfully requests that this application be reexamined and that the claims, as amended, be allowed.

Please charge any deficiency in the enclosed fees or credit any overpayments to Deposit Account No. 50-1811.

Respectfully submitted,

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